

REMARKS/APPLICANT INTERVIEW SUMMARY

Claims 12 - 21 are pending in this application. By this amendment, Claim 12 has been amended. No new matter has been added. Reexamination and reconsideration of the application is requested in light of the amended claim and remarks made in the interview conducted on March 9, 2004 and summarized below.

Examiner Interview Summary

Applicant thanks Examiner for participating in the interview conducted between Examiner and Applicant at the Patent & Trademark Office on March 9, 2004. The substance of the interview included the presentation of a working model of Applicant's invention and detailed discussions of independent claim 12 and the 35 USC §103 rejection of claim 12, rejected by Examiner as unpatentable over U.S. Patent No. 5,031,209 to Thornborough et al. ("Thornborough") in view of U.S. Patent No. 6,199,133 to Schnell ("Schnell") and further in view of U.S. Patent No 6,212,550 to Segur ("Segur").

A. Independent Claim 12

As discussed in the interview, independent claim 12 recites a system for monitoring and transmitting utility status via a universal communications interface. The universal communications interface is configurable for communicating with a plurality of different types of communication devices, such as modems. This permits a utility meter to use interchangeable communication devices, such as CDMA, IDN, GPRS, and satellite modems, without any change to the utility meter. This provides owners of the utility meters leverage in dealing with service providers providing communication pathways between the meters and a central facility. Using the claimed invention, each type of communication device is operative to communicate with a receiving device via one of a plurality of different communication mediums such as radio frequency waves, infrared waves, telephone lines, cable lines, fiber optic lines, satellite links, power lines, etc.

During the interview, Applicant asserted that an advantage of the present invention, as defined in independent claim 12, is its ability to adapt to new and changing communication mediums by interchangeably accepting different types of communication devices. As stated a page 2, lines 1 - 12 of the Specification:

A significant drawback of prior art AMR devices is that they are functionally limited in their communications options and are thus not generally adaptable to evolving communications technology. AMR devices are typically constructed with hardware and/or software components for transmitting and receiving AMR data over a single communications medium. Some prior art AMR devices may be equipped with components for transmitting and receiving AMR data over a finite number of communications media. However, as communications technology advances and new and different communications mediums are selected for the transmission of AMR data, incompatible AMR devices must be replaced at great expense to the utility companies.

B. The 35 USC §103 Rejection

1. The Thornborough Reference

During the Interview Applicant specifically addressed the teachings of the *Thornborough* and *Schnell* references. Specifically, Applicant respectfully asserted that there is no support for motivation to combine the references other than the Office Action's conclusory assertion that the references could and would be combined to read on the claims of the present application.

Referring first to *Thornborough*, Applicant pointed out that the meter disclosed by *Thornborough* teaches a meter providing a singular, one way communication from the meter to a host, also referred to as outbound communication. Applicant further described the meter of *Thornborough* as an electromechanical meter having an interface operable to count the rotation of a mechanical wheel and to convert the wheel rotations to digital form using an analog to digital converter. Applicant also noted that the meter described by *Thornborough* is no longer commercially sold due to its lack of features and its operation as an electromechanical meter as opposed to a fully digital meter having no moving parts.

Applicant distinguished the claimed invention from *Thornborough* on each of the above features. Referring specifically to the language of independent Claim 12, Applicant stressed that *Thornborough* fails to disclose a meter having a universal communications interface because *Thornborough* communicates via a single port using a dedicated telephone transmission line. As such, Applicant argued that the communication interface of *Thornborough* cannot communicate with a plurality of different types of communication devices, as required by the universal communications interface recited in Claim 12.

2. The Schnell Reference

In the outstanding Office Action the Examiner utilized *Schnell* to provide the universal communication interface described in Claim 12 and lacking by *Thornborough*. During the interview Applicant discussed the Schnell reference in detail, and respectfully asserted that the Examiner provided no motivation to combine *Schnell* and *Thornborough* references in the §103 rejection.

Applicant described the invention of *Schnell*, which relates to a bus utilized in a PC environment, where the bus plugs into multiple devices that may be in communication with each other. Applicant noted that the bus includes multiple ports to communicate with each of these devices, and uses a master/slave architecture to enable communication via the bus. Additionally, Applicant described that the bus resides external to the multitude of devices that communicate via the bus.

During the interview Applicant respectfully argued that no motivation was provided to combine the *Thornborough* and *Schnell* references, and that there is no objective suggestion that such a combination would be preferable or successful. Specifically, Applicant argued that utility meter manufacturers would not have relied on *Schnell* to provide a universal communications interface as asserted by the Examiner due to the significant and extreme differences between *Thornborough* and *Schnell*, which result from the limitations of electromechanical utility meters and their dissimilarity from master/slave computer networks. In the interview the Examiner pointed only to the fact that both relate to “digital computer technology” to support the combination. (See Examiner’s Interview Summary, Paper No. 15). To further support the references’ combinability and the motivation to combine the references, the Examiner stated that a computer could implement the function of the present invention and could be used to test the present invention.

Applicant respectfully disagreed with the Examiner’s conclusions. As stated in the interview, the use of a computer to test the present invention has no bearing on the present issue. Neither does the ability of a computer to implement the functions performed by the present invention. This argument illustrates the hindsight reasoning employed in the outstanding §103 rejection. Applicant claims a system employing a universal communications interface local to a meter; taking the Applicant’s invention and reproducing its function using a computer has no

relevance to the present §103 rejection, which must provide a motivation to combine the *Thornborough* and Schnell references to illustrate that the Applicant's claimed invention is obvious.

Thornborough, as noted above, is an electromechanical meter that is purpose built for communicating meter information via a single communication line and protocol using very low power levels. On numerous occasions during the interview, Applicant described the significant differences between the *Thornborough* meter and computers, including *Thornborough's* lack of user interfaces, lack of drivers, lack of multiple ports, lack of inputs/outputs, and lack of a conventional operating system. Although Applicant admitted that meters such as that described by *Thornborough* include a processor, Applicant stressed that the similarities end there.

Specifically, Applicant argued that those of ordinary skill in the art would not rely on a computer systems like that disclosed Schnell because the system is non-analogous to the electromechanical meter provided by *Thornborough*. As described during the interview, the performance and limitations provided by the hardware and software of an electromechanical meter do not support the features provided by the master/slave networking system of *Schnell*. Such limitations would have precluded one of ordinary skill in the art the motivation to combine the *Schnell* and *Thornborough* references. In fact, Applicant stressed that given his extensive knowledge and fifteen-plus years of experience in the utility meter industry, he would not have considered the multi-port communications bus recited in the *Schnell* reference to produce a solution for a utility meter having a single port, as there is no reason why one would look towards a computer networking solution describing a multi-port bus to enable master slave communications between multiple networked devices to enhance a dedicated utility meter having a single port and sparse resources for any functions other than meter data collection. Applicant also offered to produce evidence of commercial success to further support the argument of non-obviousness of the claimed system.

Applicant further stated that under Examiner's reasoning, any two references purportedly processing digital signals are combinable, despite a lack of motivation or an objective teaching for combining the references. As argued in the previous office action, an Examiner can satisfy a burden of obviousness in light of a combination of references "only by showing some objective teaching [leading to the combination]" In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600

(Fed. Cir. 1998). Therefore, combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability. That is the essence of improper hindsight reasoning. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985). Applicants admit that though the range of sources available as evidence of motivation can flow from the prior art references themselves, *or one of ordinary skill in the art*, the showing of motivation must be clear and particular. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352 (Fed. Cir. 1998). Thus, broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." See, e.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

C. Amendment to Independent Claim 12

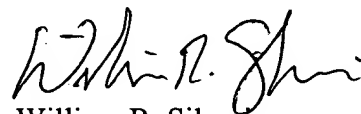
By this response, Claim 12 has been amended to recite that the a universal communications interface is local to the utility meter. As noted above, *Thornborough* fails to include a universal communications interface functionally coupled to the processor and configurable for communicating with a plurality of different types of communication devices. *Schnell*, as is also noted above, would not have been combined with *Thornborough* by one of ordinary skill in the art to render the invention of Claim 12 obvious. However, Applicant presents the current amendment in an effort to further distinguish the claimed invention from the *Thornborough* and *Schnell* references. Specifically, *Schnell* does not include a universal communications bus local to a utility meter. As distinguished from the universal present invention, the bus in *Schnell* is positioned external to the devices with which it is in communication.

Conclusion

For the foregoing reasons, Applicant does not believe that *Thornborough* or *Schnell*, alone or in combination, describes, teach or suggest all of the elements recited in amended independent Claim 12. Accordingly, Applicant submits that amended independent Claim 12 is allowable over the cited art. Dependent claims 13 - 21, which include all of the elements of independent claim 12 are therefore also believed to be allowable.

The foregoing is submitted as a full and complete response to the Office Action mailed November 13, 2002. Applicant requests that all pending claims be allowed because, as shown above, they are patentable over the art of record. If there are any issues that can be resolved by a telephone conference or an Examiner's Amendment, the examiner is invited to call the undersigned attorney at (404) 853-8422.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William R. Silverio".

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